



# Tomato potato psyllid in WA

## Frequently Asked Questions for industry

Current as of 18 December 2017

### Overview

#### **1. What is Tomato potato psyllid (TPP)?**

Tomato potato psyllid (*Bactericera cockerelli*) is an exotic plant pest which feeds on a range of host plants, including potato, tomato, eggplant, capsicum, chilli, tamarillo and sweet potato.

TPP is a tiny sap-sucking insect with three stages of development – egg, nymph and adult. All stages are very small (less than 3mm) but can be seen with the naked eye.

Adults and nymphs cause injury to plants when feeding.

- Adult TPP are about 3mm long and resemble small winged cicadas in appearance, but are the size of an aphid. The body is brownish and has white or yellowish markings and a broad white band on the abdomen. Wings are transparent and rest roof-like over the body.
- Nymphs are up to 2mm long and are oval shaped. They have a flattened scale-like appearance. Young nymphs are yellow with a pair of red eyes. Older nymphs are greenish, fringed with hairs and have visible wing buds.
- TPP eggs are less than 1mm long and are attached to the plant by a short vertical stalk. They are usually laid on the lower surface of leaves or as a halo around the leaf edge. Eggs are white when first laid then turn yellow to orange after a few hours.

TPP can carry the bacterium *Candidatus Liberibacter solanacearum* (CLso) which is associated with Zebra Chip disease in potato.

#### **2. What crops does TPP affect?**

TPP is an insect pest of a range of plants in the Solanaceae family, including potato, tomato, eggplant, capsicum, chilli and tamarillo, and some in the Convolvulaceae family such as sweet potato.

The weeds nightshade, groundcherry, matrimony vine and field bindweed are also hosts of the pest.

### 3. How do I know if I have TPP in my crop?

Check your crops for signs of TPP. This is the most reliable way to detect TPP. If you grow TPP host crops, look for insect life stages on the underside of leaves.

Signs and symptoms of TPP include:

- Adult psyllids jumping from foliage when disturbed
- Stunting and yellowing of growth tips
- Yellowing or purpling of leaf margins
- Severe wilting of plants caused by high numbers of psyllids feeding.
- 'Psyllid sugars' – white sugar-like granules excreted by adults and nymphs, which coats leaves and stems, and leads to growth of sooty mould.
- Stem death symptoms are similar to other potato and tomato disorders.

Sticky traps can be used to monitor for winged adult TPP.

### 4. What can I do to limit the spread of TPP?

- ✓ Practice good farm biosecurity to prevent the entry, establishment and spread of pests and diseases on your property. More information on biosecurity is available at the Farm Biosecurity website [www.farmbiosecurity.com.au](http://www.farmbiosecurity.com.au)
- ✓ Be vigilant in checking for signs of TPP and report any unusual symptoms to the department as soon as they are identified.
- ✓ Follow instructions set out in the Quarantine Area Notice and associated FAQs, available online at [www.agric.wa.gov.au/tpp](http://www.agric.wa.gov.au/tpp) for the movement of host plants.

### 5. How do I report TPP?

You can report via app, phone or email to the Department of Primary Industries and Regional Development:

- ✓ Download the [MyPestGuide Reporter](#) app available from the [Google Play](#) or the [App Store](#) or
- ✓ Email photos with your name, address and mobile number to [padis@dpird.wa.gov.au](mailto:padis@dpird.wa.gov.au)
- ✓ Alternatively, call the [Pest and Disease Information Service](#) on 08 9368 3080.

### 6. Where did TPP come from?

This is the first time TPP has been detected in Australia. The origin is unknown.

TPP is present in other countries including the USA, Central America and New Zealand. It can spread through the movement of host plant material, and disperse through natural pathways such as flight, wind and human-assisted movement (movement of plant material).

## **7. Has the CLso bacteria been detected?**

TPP can carry the bacterium *Candidatus Liberibacter solanacearum* (CLso) which is associated with Zebra Chip disease in potato.

There have been no detections of CLso in Western Australia to date.

Detection of CLso would be reported to the Australian Chief Plant Protection Officer, and would change the risk profile and management strategies for TPP.

Some interstate markets require proof of area freedom from CLso.

No positive detection of CLso under the agreed surveillance program will provide a high level of confidence of WA's freedom from CLso.

WA's CLso status will be assessed following the completion of the surveillance program next year.

## **Field treatment and management**

### **8. What sprays can I use for TPP?**

There are a number of pre-harvest control options available to assist with the management of TPP.

Permits from the Australian Pesticides and Veterinary Medicines Authority (APVMA) have been made available for use in host crops and nursery stock.

Download permits at

- [www.agric.wa.gov.au/tpp/industry-information](http://www.agric.wa.gov.au/tpp/industry-information) or
- [APVMA permits search portal](#)

A summary of available permits according to the crop type and active ingredient is also available on the [Department of Primary Industries and Regional Development website](#).

Growers have a responsibility to ensure chemicals are used according to the label/permit instructions.

The department is continuing to refine chemical treatment and rotation options for use on-farm, and will advise once these options have been confirmed.

If TPP is suspected in a crop, growers should immediately contact the department.

### **9. Do I need to set up my own monitoring and surveillance for TPP?**

The department is undertaking targeted surveillance in and around the metropolitan area.

Growers are reminded to check crops and report any unusual plant symptoms via app, email or phone as outlined in Question 5.

## **10. Will my property be inspected?**

Targeted surveillance of known TPP populations has been completed during spring 2017. More than 4000 psyllids have been tested for CLso as part of this spring program. The CLso bacteria has not been detected to date.

A second round of surveillance will be undertaken in early 2018 as per the requirements of the nationally-agreed Transition to management plan.

## **11. What happens if I find the pest on my property?**

There are no quarantine conditions on properties as a result of TPP.

TPP populations in commercial host crops should be controlled. Refer to **Question 8** for TPP control options for commercial host crops.

If you live outside of the Quarantine Area, growers are encouraged to report TPP so industry is aware of the locations of TPP populations within WA.

## **Industry action**

### **12. What has been done so far to combat TPP?**

TPP is an emergency plant pest and minimising its impact on Western Australian horticultural businesses is as a priority.

A national Transition to management plan has been developed following national agreement TPP cannot be eradicated and efforts should focus on management.

The cost of the Transition to management plan is shared by federal and state jurisdictions under the Emergency Plant Pest Response Deed (EPPRD) which is managed by Plant Health Australia (PHA).

The EPPRD is a formal, legally-binding agreement between Plant Health Australia, the Australian Government, all state and territory governments and national plant industry body signatories.

The Deed aims to facilitate a national approach to enhancing Australia's plant health status, through government and industry partnerships for pest and disease preparedness, prevention, emergency response and management.

### **13. What is the TPP Transition to management plan?**

Western Australia is currently leading the eight-month national plan to develop the science, biosecurity and business systems to support growers manage TPP.

The national Transition to management plan runs from September 2017 – May 2018, and includes:

- targeted surveillance for TPP/CLso complex
- scientific research and development to improve our understanding of TPP, its biology and options for control

- national and enterprise management plans to help manage TPP on properties and throughout the supply chain
- market access and trade.

#### **a. Surveillance**

A significant spring surveillance campaign targeting known populations of TPP across the Perth area and surrounds has been completed.

The community has shown great support to WA growers by supporting this program, offering to host surveillance traps on their properties.

More than 4000 psyllids have been tested for CLso as part of this spring program. The CLso bacteria has not been detected to date.

A further round of surveillance will be undertaken in early 2018.

WA's CLso status will be assessed following the completion of the surveillance program next year.

#### **b. Quarantine Area**

A Quarantine Area is currently in place which includes the Perth metropolitan area and surrounding local government areas.

The Quarantine Area conditions were developed in consultation with WA's horticultural industry and apply to commercially-produced and home-grown host plants or nursery stock grown within the Quarantine Area.

Prescribed treatment is required for host plants, such as seedlings or nursery stock, where they are moving from the Quarantine Area to specified local government areas in Western Australia.

Visit [www.agric.wa.gov.au/tpp/tpp-quarantine-area](http://www.agric.wa.gov.au/tpp/tpp-quarantine-area) for full details on the Quarantine Area including a list of shires included in the quarantine zone, FAQs, movement conditions and approved manners of treatment for movement.

#### **c. Information tools for growers**

The department's website is regularly updated with the latest TPP information including monitoring guides, FAQs, videos and photos to assist growers.

Industry updates in English and Vietnamese are also provided as new information becomes available.

The latest industry update as well as other information on TPP and the Transition to management activities and outcomes is available from [www.agric.wa.gov.au/tpp](http://www.agric.wa.gov.au/tpp).

WA vegetable growers can also access detailed industry information at [www.vegetableswa.com.au](http://www.vegetableswa.com.au)

#### **d. National TPP project**

The WA Department of Primary Industries and Regional Development and horticultural industry is working with the National TPP Coordinator.

The National coordinator role is funded for three years, ensuring initiatives which have begun during the Transition to management phase can be continued.

The primary output of the project will be the development of a national TPP management strategy, which will include a national TPP R&D agenda, to be updated annually.

#### **14. Who is involved in the Transition to management plan?**

Western Australia is leading the TPP Transition to management plan.

Industry and government at state and federal levels are involved, including vegetablesWA, Potato Growers Association of WA, Nursery and Garden Industry WA, Department of Primary Industries and Regional Development, AUSVEG, Plant Health Australia, the federal Department of Agriculture and Water Resources and other state departments.

Efforts to effectively manage TPP at the moment are largely directed at Western Australia. However, as this is a national project, and activities seek to benefit both Western Australia and other states/territories not yet managing the pest.

#### **Trading**

#### **15. Can I still sell fruit/vegetables within WA which are considered TPP hosts (e.g. tomato, capsicum, eggplant, chilli, potato)?**

Yes – there are no movement conditions on fruit and vegetables **within** WA.

Treatment and movement conditions apply to TPP host plants including seedlings, nursery stock, and ornamentals. Refer to Question 13.b for more information.

#### **16. Can non-host material be moved off properties?**

Yes – non-host material can be moved off properties. There are no conditions on the movement of produce **within** WA.

#### **17. Are there interstate/export conditions on the movement of fruit/vegetables/plant material that are considered hosts for TPP (e.g. tomato, capsicum, eggplant, chilli, potato etc.)?**

Yes. Australia's states and territories can apply movement conditions to material which could pose a quarantine risk to their state or territory.

Import conditions are made by the receiving state or territory.

Check to find out what movement conditions apply to your produce.

- ✓ Contact or check the website of the plant quarantine regulator in the state or territory you are moving produce to.  
Contact details and links are provided on the Australian Interstate Quarantine plant quarantine regulator contacts page: [www.interstatequarantine.org.au/producers/committees/quarantine-regulators/](http://www.interstatequarantine.org.au/producers/committees/quarantine-regulators/)
- ✓ QuarantineWA (QWA): 08 9334 1800 or [qa@agric.wa.gov.au](mailto:qa@agric.wa.gov.au)

## **Biosecurity**

### **18. What is farm biosecurity?**

Farm biosecurity is a set of measures designed to protect a property from the entry and spread of pests and diseases. Farm biosecurity is your responsibility, and that of all visitors and workers on your property.

### **19. What biosecurity measures should I implement to assist in managing TPP?**

Proper signage to restrict entry, routine surveillance for pests, on-farm clean down facilities, and action plan and checklist are all part of a farm biosecurity regime.

The weeds nightshade, groundcherry, matrimony vine, and field bindweed are also hosts of the pest and management of these should be considered.

### **20. What biosecurity resources are available?**

More information on biosecurity is available at the Farm Biosecurity website [farmbiosecurity.com.au](http://farmbiosecurity.com.au)

Additional resources include the AUSVEG Farm Biosecurity Plan, [ausveg.com.au/biosecurity/Biosecurity%20R.pdf](http://ausveg.com.au/biosecurity/Biosecurity%20R.pdf)

## **Industry contacts for growers**

### **VegetablesWA**

Phone: 08 9486 7515

Email: [office@vegetableswa.com.au](mailto:office@vegetableswa.com.au)

### **Potato Growers Association of WA**

Phone: 08 9481 0834

Email: [potatoes@vegetableswa.com.au](mailto:potatoes@vegetableswa.com.au)

### **Nursery and Garden Industry Western Australia**

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